



60130-391
99AUT080

REMARKS

Applicant wishes to thank the Examiner for the detailed remarks. Claims 5 and 6 have been amended. Accordingly, claims 1-6 are pending.

With regard to the drawings, red-lined mark-ups are provided under separate cover to more fully indicate the damper attachment. No new matter has been added.

Claims 5 and 6 were rejected under 35 U.S.C. §112. Applicant respectfully submits that the claims as amended are in proper condition according to §112.

Further, the claims have been amended to make clear that the “air cell” is deformable, and that as the piston moves, it will deform the air cell.

Claims 1-3, and 4 were rejected under 35 U.S.C. §102(b) as being anticipated by *Bates* (3,913,940.) Applicant respectfully traverses this rejection. Claims 1 and 4 recite an *air cell* having a second end of a greater diameter than said first end or a frustro-conical configuration. *Bates* fails to disclose or suggest such an *air cell*. *Bates* discloses an element 12 which is an air cell of a conventional configuration. Moreover, the Examiner attempts to equate one of the solid metal parts as being the “air cell.” Of course, this was an unfair interpretation of the claim initially, but certainly cannot meet the amendments to the claims wherein the air cell is now recited as being deformable. Claims 1-3 and 4 are thus properly allowable.

Claims 5 and 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Bates* in view of *Smith* (5,234,203.) Applicant respectfully traverses this rejection. *Smith* also discloses a completely cylindrical air cell and does not solve the deficiencies of *Bates* as described above.

Applicant respectfully submits that this case is in condition for allowance. If the Examiner believes that a teleconference will facilitate moving this case forward to being issued, Applicant's representative can be contacted at the number indicated below.

Respectfully Submitted,

CARLSON, GASKEY & OLDS, P.C.



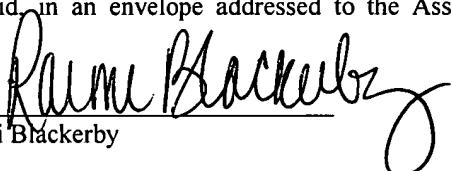
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Dated: August 6, 2001

CERTIFICATE OF MAILING

I hereby certify that the Response and associated documents are being deposited with the United States Postal Service as first-class mail, postage prepaid, in an envelope addressed to the Assistant Commissioner of Patents, Washington, D.C. on August 6, 2001.

Raimi Blackerby



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60130-391
99AUT080

VERSION WITH MARKINGS TO SHOW CHANGES MADE

-SPECIFICATION-

Please amend the paragraph beginning at line 3 of Page 5 to:

In a second feature of the present invention, the damper 18 includes a negative force characteristic. The damper 18 interconnects the axle assembly 20 and the chassis 22. The damper 18 is mounted between axle 20 and chassis 22 to provide a dampening force to the axle assembly 20 as is known. Preferably, when the suspension system 10 is unloaded the damper 18 slows the unloaded movement of the longitudinal member 14. This allows the axle assembly 20 to fall away from the chassis 22 at a controlled rate. The controlled rate provides additional time for an anti-vacuum system (shown schematically at 60 in Figure 2) to operate.



60130-391
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

- CLAIMS -

Please amend the following claims to:

1. (AMENDED) An air spring for a vehicle air suspension system comprising:
a piston attached to a longitudinal member pivotally attached to a chassis component for pivotal movement about an axis; and
a deformable [an] air cell having a first end attached to said piston and a second end attached to said chassis component, said second end having a greater diameter than said first end, said piston moving to deform said deformable air cell.

5. (AMENDED) The system as recited in claim 4, wherein said air cell includes an anti-vacuum system and a damper disposed between said axle assembly and said chassis component, said damper extendable at a rate which allows said anti-vacuum system to equalize a pressure within said air cell with atmospheric pressure as said longitudinal member pivots about said axis away from said chassis component.

6. (AMENDED) An air suspension system for a vehicle comprising:

a longitudinal member pivotally attached to a chassis component for pivotal movement about an axis;

an axle assembly mounted to said longitudinal member;

[an] air spring having a deformable frustro-conical air cell and a piston, said air spring disposed between said longitudinal member and said chassis component, said air cell having a first end attached to said piston and a second end attached to said chassis component;

an anti-vacuum system within said air spring, said anti-vacuum system operable to equalize a pressure within said air cell with atmospheric pressure as said longitudinal member pivots about said axis away from said chassis component; and

a damper disposed between [longitudinal member and the vehicle] said axle assembly and said chassis component, said damper extendable at a rate which allows said anti-vacuum system to equalize a pressure within said air cell with atmospheric pressure as said longitudinal member pivots about said axis away from said chassis component and said piston moving to deform said deformable air cell.

